



Figure 6. Change of summer sea ice area between 1979–1999 and 2045–2054, given as a fraction of ice remaining in various water bodies, and the northern hemisphere as a whole (NH 40-90N). The models that passed the selection criteria are shown for each water body. The line in each plot indicates a 40 percent reduction in the area of summer sea ice at 2050 versus the baseline period of 1979-1999 (figure from Overland and Wang 2007a, pp. 1-7, used with permission).

DeWeaver (2007), applying a similar conceptual approach as Overland and Wang (2007a, pp. 1–7) and Stroeve et al. (2007, pp. 1–5), used a selection criterion to construct an ensemble of 10 climate models that most accurately depicted sea-ice extent, from the 20

models that contributed sea ice data to the AR4. This 10-model ensemble was used by the USGS for assessing potential polar bear habitat loss (Durner et al. 2007). DeWeaver's selection criterion was to include only those models for which the mean 1953–1995

simulated September sea ice extent is within 20 percent of its actual observed value (as taken from the Hadley Center Sea Ice and Sea Surface Temperature (HadISST) data set (Raynor et al. 2003)). DeWeaver (2007) then investigated the future performance of his 10-model